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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/532,255

04/21/2005

Friedrich Arnold

2002P01332WOUS

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EXAMINER

KOCA, HUSEYIN

ART UNIT

PAPER NUMBER

3744

MAIL DATE

DELIVERY MODE

09/19/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/532,255

Applicant(s)

ARNOLD ET AL.

Examiner

Huseyin Koca

Art Unit

3744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 1-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 April 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>04/21/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. This application contains claims directed to the following patentably distinct species:

Species A: Fig. 2

Species B: Fig. 3

Species C: Fig. 4

The species are independent or distinct because each species does not require the particular details of the other species.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, none are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species.

MPEP § 809.02(a).

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2. During a telephone conversation with Craig Leo on 09/04/2007 a provisional election was made without traverse to prosecute the invention of Species A, claims 1-24 and 27-31. Affirmation of this election must be made by applicant in replying to this Office action. Claims 25, 26, and 32 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Drawings

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "temperature sensitive element has a plurality of separate portions with different properties" (claims 24 and 29, lines 1-2) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "separate portions with different properties are separate colors with different temperature limits for said property changes" (claim 25, lines 1-2) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

6. Claim 19 is objected to because of the following informalities:

Claim 19 recites "The unit according to claim 17, including said temperature sensitive element is located and can swim in said buffer liquid" should change to "The unit according to claim 17, including said temperature sensitive element is located inside said container and can swim in said buffer liquid."

Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 13-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The recitation of "...controlling the temperature detected by said temperature sensitive element..." (claim 13, line 5) is unclear in context because there is no controlling of the detected temperature in the specification.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 13, 15, 17, 19, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Jones (2,923,786).

In regard to claim 13, Jones teaches forming a unit (combination of 13 and 15) from a temperature sensitive element (15) and a thermal buffer liquid in a substantially transparent container (13); placing the unit container at a site to be monitored inside the refrigerator (Fig. 1); and controlling the temperature detected by said temperature

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sensitive element by visually observing a temperature dependent variable property of said temperature sensitive element (Fig. 1; Fig. 3; C-1, L-49-72).

In regard to claim 15, Jones teaches forming said thermal buffer liquid from water (C-1, L-60-61).

In regard to claim 17, Jones teaches a unit comprising a container (13); a thermal buffer liquid in said container; and a temperature sensitive element (15) in thermal contact with said buffer liquid (Fig. 1; C-1, L-49-72).

In regard to claim 19, Jones teaches that the temperature sensitive element (15) is located inside said container (13) and can swim in said buffer liquid (Fig. 1).

In regard to claim 27, Jones teaches a body (15) for thermal contact with the buffer liquid; the body (15) immersed to swim in the buffer liquid; and the body (15) has different substantially discrete values of a property which can be visually observed of at least one of above or below a temperature limit to be monitored (Fig. 1; C-1, L-49-72).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. Claims 14, 18, 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones (2,923,786).

In regard to claim 14, Jones teaches most of the limitations of the claim but does not explicitly teach selecting the quantity of thermal buffer so that temperature equalization of the unit and the refrigerator requires at least about one hour. However, Jones teaches that the container is filled with water which will assume substantially the same temperature as the material in the containers (C-1, L-55-59). One having ordinary skill in the art would know how to adjust the equalization temperature by the quantity of the liquid through experimental procedures. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select the quantity of thermal buffer so that temperature equalization of the unit and the refrigerator requires at least about one hour in order ^{to} advantageously give more precise temperature readings regarding to the articles in the refrigerator.

In regard to claim 18, Jones teaches a container (13) but does not explicitly teach the capacity of the container. Since the containers come in variety of sizes and capacities, than it would have been obvious to one having ordinary skill in the art at the time the invention was made to select a container capacity in the range of about fifty (50) to two hundred and fifty (250) cubic meters for the suitability of the experimental

procedure in order to advantageously adjust the temperature equalization time to desired level.

In regard to claim 31, Jones teaches most of the limitations of the claim but does not explicitly teach that the temperature sensitive element is in the form of a fish. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the body of the temperature sensitive element in the form of a fish in order to advantageously achieve a device that is capable of floating in water or submerge under water while eliminating or reducing drag force on the device. The specification of this application also states that the form of the temperature sensitive element can be any shape (page 6, lines 31-32).

14. Claims 16, 20-24, and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones (2,923,786), and further in view of Witonsky et al. (US 2003/0147450).

In regard to claim 16, Jones teaches most of the limitations of the claim but do not explicitly teach that the temperature dependent variable property of the temperature sensitive element without using any external energy supply. Witonsky et al. teach that the temperature dependent variable property of the temperature sensitive element (18) without using any external energy supply (Fig. 1; 0022, lines 5-9). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Jones system so that it temperature dependent variable property of the temperature sensitive element does not use any external energy supply as taught by

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Witonsky et al. in order to advantageously eliminate the use of electricity to save money and also avoid air passages in the refrigerator by eliminating use of wires.

In regard to claim 20, Witonsky et al. teach that the temperature sensitive element has different substantially discrete values of a property which can be visually observed of at least one of above or below a temperature limit to be monitored (Fig. 2; 0022, lines 5-9).

In regard to claim 21, Witonsky et al. teach the property changes its value in a temperature range of about 7 and 10 degrees Celsius above the temperature limit (Fig. 2).

In regard to claim 22, Witonsky et al. teach that the property is the color of at least one portion of the temperature sensitive element (0022, lines 6-9).

In regard to claim 23, Witonsky et al. teach that the temperature sensitive element has a plurality of separate portions with different properties (Fig. 2; 0022, lines 5-9; 0032, lines 9-14).

In regard to claim 24, Witonsky et al. teach that the separate portions with different properties are separate colors with different temperature limits for said property changes (Fig. 2; 0022, lines 5-9; 0032, lines 9-14).

In regard to claim 28, see claim 22.

In regard to claim 29, see claim 23.

In regard to claim 30, see claim 24.

Conclusion

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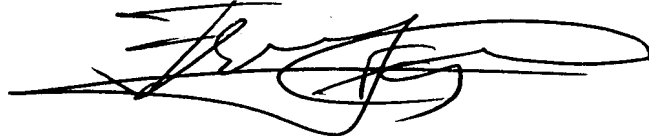
15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huseyin Koca whose telephone number is (571) 272-3048. The examiner can normally be reached on Monday - Friday 9:00AM to 4:00PM.

16. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834 or Frantz Jules (571) 272-6681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

17. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HK/

FRANTZ JULES
SUPERVISORY PATENT EXAMINER

A handwritten signature in black ink, appearing to read 'Frantz Jules', is written over a horizontal line.